Transport Canada Transports Canada

TRANSPORTATION POLICY
A FRAMEWORK FOR TRANSPORT IN CANADA

SUMMARY REPORT

JUNE 1975

"...Transportation must be an instrument of national policy, designed to achieve broad social and economic objectives."

From: The Throne Speech,

September 30, 1974

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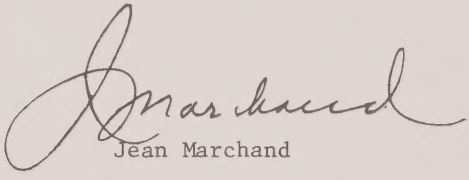
FOREWORD

This Report is a summary of the policy and analytical work carried out in the course of the Government's current review of transportation policy. It represents an attempt to develop a broad framework within which to examine transportation in Canada, a statement of policy, and a set of principles to guide the future development of the transportation system.

The Government has approved the broad framework, the policy and the principles set out in this Report as a basis for public discussion, leading to legislative and related changes.

More detailed analyses of freight and passenger transportation in Canada are being published separately, in "An Interim Report on Inter-City Passenger Movement in Canada" and "An Interim Report on Freight Transportation in Canada".



Jean Marchand
Minister of Transport
Ottawa
June 1975

INTRODUCTION

No country in the world, with the possible exception of Russia, is as dependent upon its transportation system as Canada. From the beginning, the immense distances and sometimes harsh terrain made transportation one of the essential components of Canadian nationhood, and therefore one of the major concerns of Canadians: the growth and distribution of Canada's population and the thrust of transportation have been so interdependent that cause and effect seem indistinguishable.

Today, most of Canada's people live in an East-West corridor some 4,000 miles long and about 200 miles wide, the dimensions of which were dictated partly by climate and geography and partly by transportation. The rest inhabit a northland of incredible beauty, geographic difficulty and socio-economic promise. Recognizing these facts, the challenge for Canadian transportation today is to identify and serve the needs of all Canada, within a framework of total government policy.

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PART ONE: THE POLICY ENVIRONMENT

Transportation has been an instrument of national social and economic purpose throughout the course of Canadian political and economic development. Canadians have used the transportation system to foster the political unity of the nation by encouraging the movement of goods and people through Canada in the face of vast distances, low population density, and the natural north-south patterns of North American geography. To do this, governments have historically provided leadership in ensuring that the basic transportation system was in place to serve these ends.

Transportation is essential to the economic activity of the country. It supports the domestic economy and Canada's role as a trading nation, thus contributing to the creation of the wealth which permits the achievement of broader social and cultural priorities. However, transportation can and does work in direct support of these national priorities, providing needed services that link the country together and foster the unity of the nation.

World requirements and prices for food and resources have increased dramatically, resulting in rapid growth in the movement of bulk commodities from the Prairies and the North. Over the next ten to fifteen years, major expansions of existing capacity are envisaged in the rail network, highways, ports and possibly the Welland Canal in the south, as well as major extensions to the north in British Columbia, Alberta, Ontario, Quebec, Labrador and the Territories. These developments provide Canada with major opportunities.

At the same time, Canadians are increasingly concerned about the impact of economic growth on the quality of life and the environment in both urban and rural areas. Some even challenge the desirability of any growth at all. Transportation provides important opportunities to deal with, or at least to alleviate, some of these concerns: energy efficient transportation to reduce fuel consumption; clean transportation to reduce pollution; safe transportation to reduce loss of life in highway accidents;

and expanded transportation services to help distribute economic activity more equitably between and within regions.

The development of extended, expanded and improved services will require a redirection of resources and efforts. Decisions as to the nature and location of the services and facilities to be provided are critical in view of the magnitude of the private and public resources involved and their potential impact on the economy, the distribution of development, the quality of the environment, and the social priorities of the nation. An important role of transportation now, as in the past, is to develop such needed services, and in so doing, to serve as an instrument of national economic, social and political purpose.

It must be recognized, however, that there are many factors which will influence the development and operation of the transportation system. Some are external factors such as the growth of world trade, the demand for Canadian exports, and existing or future agreements with foreign countries. Others are domestic in origin: decisions to restrict growth, to conserve energy, to protect the environment, or to redirect the pattern and nature of urban and regional development, for example, could all have a marked influence on the future development of the transportation system.

PART TWO: THE POLICY SETTING

1. The National Transportation Act

By the late 1950's, when the Royal Commission on Transportation (the MacPherson Commission) was appointed to review Canada's transportation policy, the major transportation infrastructure was already in place. The rail system, the major ports, the national air system and major pipeline links were all in place, the Seaway and Trans-Canada Highway were under construction, and it appeared that there was adequate transportation capacity for some years to come. The National Transportation Act of 1967, which followed many of the Commission's guidelines, reflected this situation.

In brief, the Act assumed that the economic mechanism of competition would, subject to some regulation, guide the organization, financing and development of transportation services. Focussing on the mature and highly competitive services, the Act assigned a primarily passive role to government -- that of providing and operating some infrastructure and services (e.g. airports and ports), and providing compensation for resources, facilities and services imposed as a public duty.

From the time of the MacPherson Commission to the passage of the National Transportation Act, most activities in transportation tended to confirm the wisdom of the underlying philosophy of the Commission's findings. Significant improvements in productivity occurred in various transportation modes as a result of the introduction of new technology and larger vehicles. These productivity improvements in turn resulted in transportation costs holding the line in comparison with other segments of the economy.

In rail, the 1950's saw the start of the replacement of steam by diesel locomotives, increasing train operating efficiencies and capacities. In the air mode, the late 1950's and the early 1960's witnessed the widespread use of jet aircraft, which provided for vastly improved services to passengers, and enabled airlines to offer a

broader range of services at lower unit costs per seat mile. Air fares, in fact, continued to decline in absolute dollars until very recently. The 1960's also saw the introduction of containers for inter-modal transportation, foreshadowing a revolution in general cargo freight traffic. Containers, permitting combinations of truck, rail, ship and air movements, speed service, reduce costs, and are growing rapidly in use. The period witnessed as well the beginning of unit train operations for the movement of bulk commodities. Such operations result in greater efficiency in the movement of a single commodity from producer and shipper through to the receiving ocean carrier or power plant. Avoiding the complex assembly and breaking apart of trains of mixed products at origins and destinations results in significant cost and productivity improvements.

Thus, it appeared at the time of the Transportation Act that the fundamental requirement of government was to foster an environment in which public and private commercial corporations could compete effectively in providing transportation services and generate adequate cashflows to provide for continued system improvements, which would in turn increase productivity, reduce costs, and improve services to the benefit of passenger and shipper.

The recognition of the inter-modal nature of transportation was another important concept underlying the philosophy of the National Transportation Act. Recognizing that goods in Canada tend to move through a series of modes from origin to destination, the Act called for the consolidation of all transportation regulations under one body, the Canadian Transport Commission. It was felt that this would help to set transportation regulation in a context that reflected the inter-modal nature of transportation.

In addition, the Act envisioned that the Commission would advise the Minister of Transport on transportation policy in Canada, a provision which led to the creation of one of the most extensive and competent research units in Government.

2. The Period Since the National Transportation Act

The philosophy of the MacPherson Commission, as embodied in the National Transportation Act, has now been in force only eight years. However, since the Act came into law in 1967, dramatic changes in the social and economic environment of the world and of Canada have taken place.

Two of the most profound changes have been the world-wide recognition of the future limits of certain resources and the present shortages of some commodities, created by a combination of natural conditions and international policy. An excellent example is the rise in the price of grain that followed the world shortage of 1972. From a price of around $1.50 per bushel, (a price which has remained relatively stable for over thirty years) grain rose to $5.00 per bushel in 1973. Current prices have settled somewhat but the future prospects are for significant sales at relatively firm prices. Similarly, the prices of other resources, most notably oil, have increased rapidly.

This sharp rise in the prices of bulk commodities has been a major influence on the behaviour of the various trading nations, causing them to seek alternate sources or substitute products. In the United States, for example, an aggressive effort is being made to find alternate sources of energy. In Canada, energetic efforts by government and the private sector are directed towards bringing the Alberta Tar Sands into production as an alternate source of oil. The establishment of the Sarnia to Montreal pipeline is a direct example of additional infrastructure made necessary by changes in the world economy.

The changed world prices of resources offer an incentive to Canada to try to bring the vast wealth of the nation into production. Provided the complex human and environmental problems can be overcome, many of the resources in the North, which were once regarded as too

expensive to be competitive, have now become increasingly more economic.

Provincial Governments are establishing strategies for the development of their northern hinterlands, not unlike the national strategy of an east-west Canada at the time of Confederation. We are thus experiencing a new phase in the development of the nation; we are entering upon the next major expansion of Canada from the developed and mature areas of the South towards the underdeveloped riches of the North.

The opening up of these northern reaches will require large investments in infrastructure. The choice of both the location and the type of transportation can have a major influence on the quality of development, the efficiency of the economy, and the distribution and diversity of development in southern Canada. Used in this fashion, transportation can indeed be an instrument of national policy.

Government's leadership role in these developments has already been demonstrated in the field of energy through direct investment in such undertakings as the Alberta Tar Sands. The National Transportation Act, which focussed on transportation services and pricing in a mature and relatively developed economy, is not fully equipped to deal with the policies, mechanisms and complex relationships between government and industry that are needed for the next phase of transportation development.

Another new factor is the strong public concern for conservation which now results in the close investigation of the impact of new developments on the natural environment and the demand for more resource-efficient and cleaner transportation, even at some economic cost, at least in the short run. This is reflected in the promotion and growth of various forms of public transport, particularly in urban areas, in an effort to reduce the extent of private automobile use.

There has also developed an increased awareness of the disparity of opportunity that exists in Canada. In response, the Government of Canada established a Department of Regional Economic Expansion to help develop the potential of lower-income regions, with transportation being an important supporting element, sometimes an essential one. A major example was the establishment of the Halifax container facility, which not only provides a valuable transportation service for the rest of Canada but, at the same time, makes Halifax a potentially more attractive location for industry.

As demands on the transportation system increase and as it expands and changes, an integrated approach is needed to system planning, development and operations that takes account of all possible alternatives and that makes the most appropriate use of each mode in the network. Only in this way can the full potential of transportation as an economic instrument be achieved.

An example of the need for an integrated approach is the possible substitution of unit train carriage of bulk commodities such as grain, coal and iron ore for some water shipments through the Great Lakes and the St. Lawrence Seaway systems. Projected large increases in such shipments, if they remain largely or completely in the marine mode, could lead to the eventual saturation of capacity of the Welland Canal, requiring substantial public investments to increase through-put. While the water mode may offer marginally lower prices due to the present level of subsidies, unit trains might in fact be less expensive in the long run, if their use would delay or eliminate such major investments. This is an excellent example of how a choice of mode for one or more major commodities must be considered in terms of its impact on an integrated transportation system.

Other examples include the major extensions north and the linkages of those extensions to the established east-west network in southern Canada. The increased flow of northern resources will place additional demands on the transport network in the South. This will require expansions, the nature and locations of which can have a significant impact on both the distribution and the diversity of industry and employment, as well as the standard of living and quality of life across Canada.

An integrated approach to transportation also requires consideration of non-transport alternatives. For example, instead of moving vast quantities of coal from Alberta to Ontario, it might be possible, with future technology, to convert the coal into electricity or gas in the West and transmit the energy via grid or pipeline to the East. Perhaps more immediately practical in terms of today's technology, exports of coal could be reduced by the further manufacturing in Canada of coal-derived products for offshore markets.

Thus the present and future needs of Canada's transportation system have changed drastically in the past eight years. There is now a need for a transportation policy that recognizes the developing character of much of Canada and the resulting need for extended, expanded and improved services. Such a policy must also take account of the different states of transportation facilities and services in various parts of the country, and permit each to be treated accordingly. This entails a new view of the overall transportation system and a new framework for policy.

PART THREE: THE FRAMEWORK FOR TRANSPORTATION POLICY

The purpose of this section is to develop a framework within which to portray the wide range of situations that typify transportation in Canada, including some of those discussed earlier. This framework is then used to display the governmental roles appropriate to each.

Any transportation problem can first be defined in terms of what has to be moved, its origin, its destination, and the intermediate points through which it travels. But there are two additional dimensions which add to this basic definition.

The first dimension relates to the maturity of the transportation service. A system can be 'mature', in that the basic facilities are in place, offering a high level of service, as represented by quality and frequency, or it can be undeveloped, with relatively low quality or frequency of service.

The second dimension relates to the degree of competition (inter-modal and intra-modal) in the provision of a particular service. The degrees of competition may vary from high inter-modal competition (with many modes and several carriers for each mode) or high intra-modal competition (with basically one mode and several carriers) to little or no competition (with one carrier and one mode).

These two dimensions can be represented graphically on a matrix, as shown on Exhibit 1. This matrix depicts four typical transportation situations or contexts within which transportation problems may be considered:

> Context A corresponds to a highly developed transportation system with a high degree of competition among modes. This is the context to which the underlying philosophy of the National Transportation Act most fully applies.
>
> Context B corresponds to a highly developed transportation system in which there is little or no competition. At the boundary between Contexts A and B is a situation in which one mode is predominant, but with some degree of intra-modal competition (e.g. two or more air carriers). It should be

noted that a situation of little or no competition can be a result of a number of conditions, such as the nature of the commodity concerned, which might be suitable for movement by only one mode, the geography, or the volume of traffic involved.

Context C corresponds to an undeveloped, non-competitive system. This is often the case in remote areas where there is a relatively low level of service and where many carriers cannot compete for the reasons noted in relation to Context B.

Context D corresponds to a developing system in a highly competitive market. Typical examples of this situation are cases in which new technology is introduced in a competitive market, such as the introduction of STOL service into the short-haul inter-city passenger transportation market. Major capacity expansions to existing systems would also be considered in this context.

This broad framework can be used to examine various transportation markets in Canada, including passenger travel, bulk commodities, and general cargo shipments. Such an examination is being conducted for the different transportation services. For purposes of illustration, some broad categories of service are related to the framework in the following paragraphs.

Passenger Travel

The way in which the various categories of passenger services relate to the framework is illustrated in Exhibits 2, 3 and 4.

In the short to medium-haul passenger market, the private automobile is the most important means of travel, although there is substantial inter-modal competition among bus, rail and air, particularly on higher density routes.

On long-haul routes, air is the dominant mode. While there is little inter-modal competition in this market, a degree of controlled intra-modal competition between air carriers has been established as a matter of government policy.

Passenger transportation services in remote areas are not fully developed, and are often subject to little or no competition.

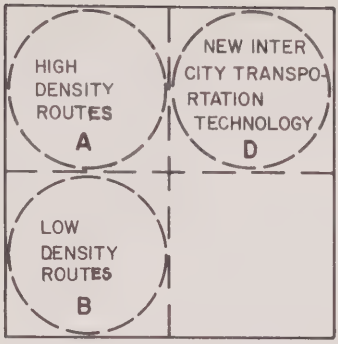


Exhibit 2: SHORT HAUL PASSENGER MARKETS

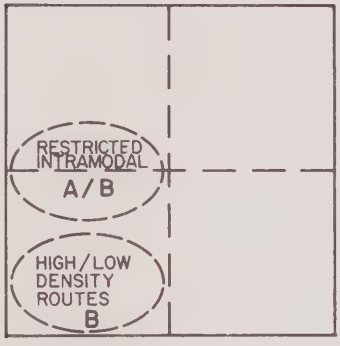


Exhibit 3: LONG HAUL PASSENGER MARKETS

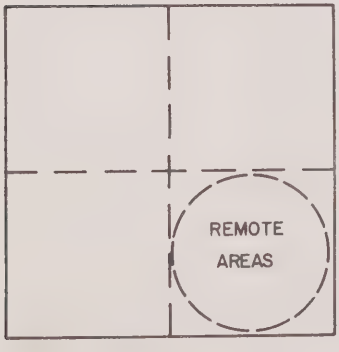


Exhibit 4: REMOTE AREAS PASSENGER TRANSPORTATION MARKETS

Bulk Commodities

In Exhibit 5, various components of the bulk commodity market are shown in a representative position. Western bulk commodities move principally by rail to western ports and eastward to Thunder Bay. Beyond Thunder Bay, there is a choice between rail and water, although maritime transportation is less expensive and therefore often preferred by shippers.

Iron ore from Quebec and Labrador is shipped mainly to foreign markets by rail and sea, with some potential for intra-modal competition.

Northern Ontario products, destined to domestic markets, use rail, truck and water, with varying degrees of competition.

Eastern forest products can be moved by a variety of modes, with rail, truck and water available. In British Columbia, coastal marine transportation is so much cheaper that it attracts most of the traffic, although competition is theoretically possible.

Arctic resources, located in remote areas where the transportation infrastructure is relatively undeveloped and the volumes are still low, are often suited to only one mode (e.g. ships for iron ore).

It should be noted that, even when there is no inter-modal or intra-modal competition, rates governing bulk movements can be affected by market competition (that is, competition from other sources, whether domestic or foreign).

General Cargo

General cargo movements are represented in Exhibit 6. Basically, this is a mature, competitive market, except in remote areas. Rail and truck compete in many parts of Canada and, in some areas, there is water competition as well. For higher value goods, air cargo is used increasingly. A significant volume of goods is shipped by privately-owned trucking fleets, which compete with rail and for-hire trucking.

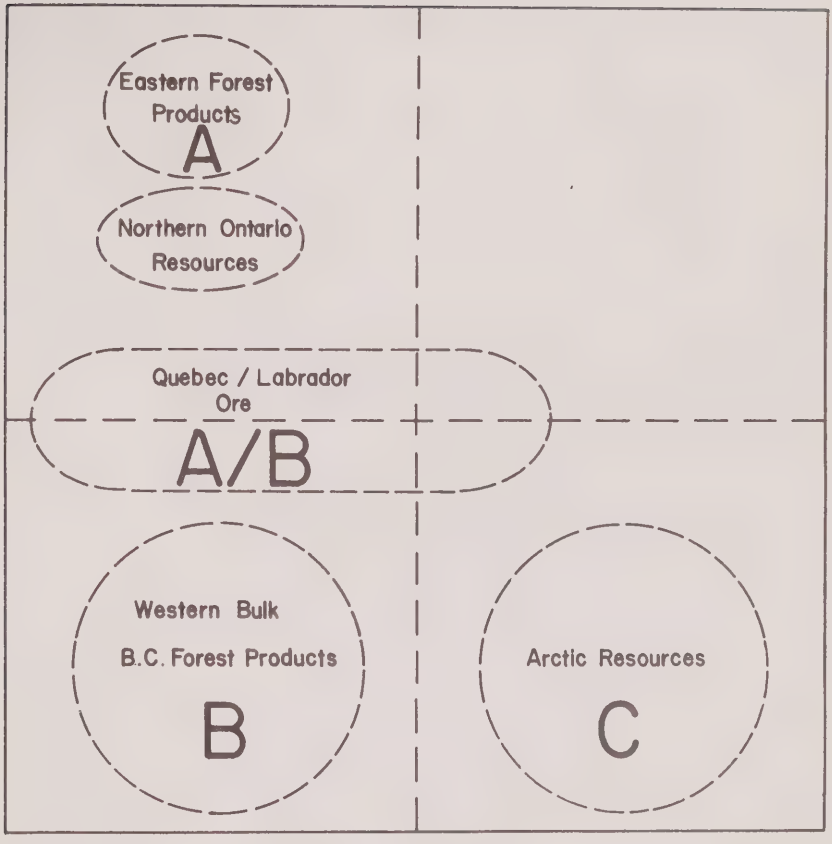


Exhibit 5: BULK COMMODITIES MARKETS

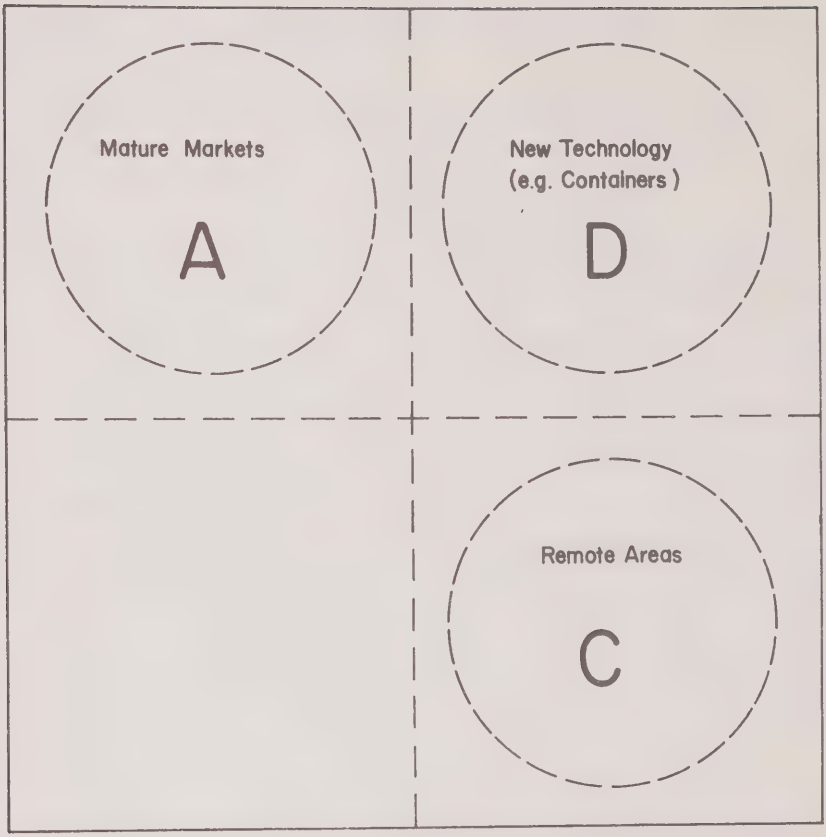


Exhibit 6: GENERAL CARGO MARKETS

There is also developmental potential arising from new technology, such as containers.

Each of the four contexts in the framework described above has different characteristics, and requires different treatment in terms of public policy. Looking at each in turn:

Context A: A Highly Developed System with a High Level of Competition

In such situations, government action can be limited, seeking mainly to preserve and encourage intra-modal and inter-modal competition by preventing the development of monopolistic market situations such as market sharing or vertical or horizontal integration of carriers. Government effort in these situations must also be directed to safety and environmental questions.

Context B: A Highly Developed System with a Low Level of Competition

In such a situation, efficiency often requires a single mode or a single carrier operation. Because of the resulting monopoly or quasi-monopoly, normal government action should be regulatory in nature, making sure that the rate charged by the carriers and the level of service provided are equitable and efficient.

Context C: An Undeveloped System with a Low Level of Competition

Remote areas fit this situation. Government action should be developmental, designed to encourage the development of transportation, where necessary, through direct investments, subsidies or grants; regulatory, designed to ensure that the system operates in an economic and equitable manner; and operational, through the direct provision of transportation services where private services are not available.

Context D: A Developing System with a High Level of Competition

In this situation, government action should be developmental in nature, designed to promote improved services through support for new technology where such new technology is required to alleviate existing or future problems, or to provide major increases in capacity and improvements to existing systems.

Thus, a typical form of government intervention can be assigned to each area, as depicted in Exhibit 7.

The foregoing discussion focussed on a context for transportation policy primarily in terms of the requirements of the transportation system as such. Transportation services, however, must clearly be related to the broader range of public policies. This means that the efficiency of the transportation system may not be the sole objective considered, but one that must be taken into account along with others.

For example, in the mature, competitive situation represented by Context A, federal government actions, for non-transportation reasons, might go beyond the limited regulatory function described above and support the development of suburban or inter-city transportation facilities or services which would reduce damage to the environment, conserve energy and encourage growth away from congested urban areas. The development of new transport technology, for example, might be motivated by concern for environmental quality: "cleaner", low energy modes can be required not simply for transportation efficiency alone but for environmental protection as well. Conversely, concern to protect the environment in a particular location might lead to a decision not to provide certain transportation facilities.

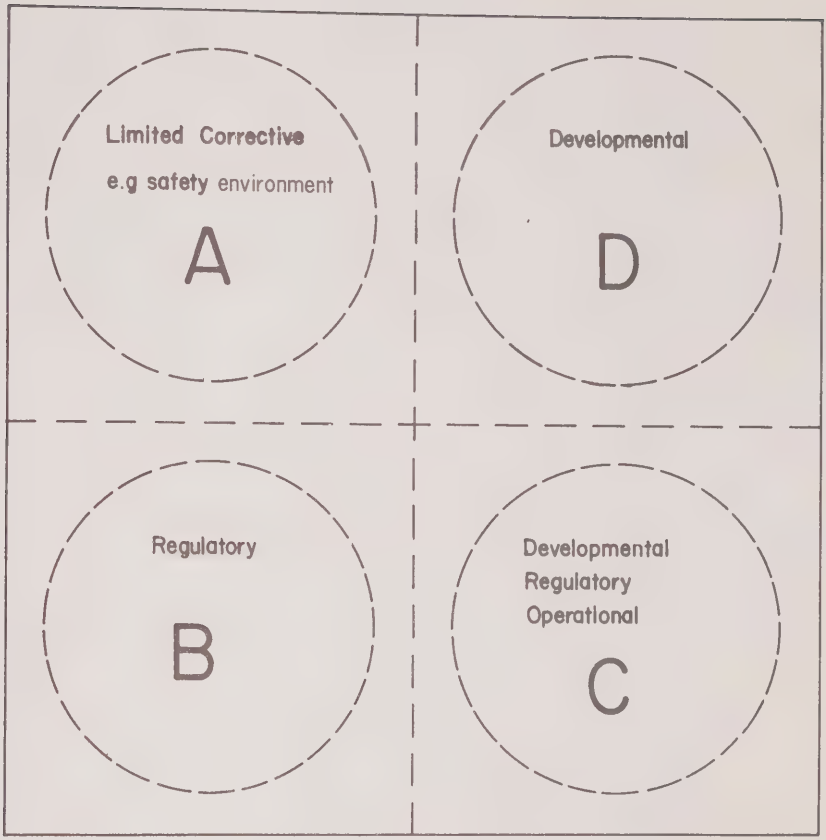


Exhibit 7: TYPICAL FORMS OF GOVERNMENT ACTIONS

Both the planning and provision of transportation facilities are, therefore, a result of transportation requirements and other policy objectives. Generally, where transportation services are mature, the users should be expected to pay for the costs of providing the services. Where services are in a developing stage, government will have a role to play, not only in providing the necessary leadership, but as well in furnishing a measure of direct assistance. Government could also have a direct assistance role where services are being provided to meet a specific national purpose.

PART FOUR: DETERMINANTS OF TRANSPORTATION POLICY WITHIN THE FRAMEWORK

Transportation policy must not only reflect the range of situations encompassed by the framework described earlier; it must also take account of the problems of the present passenger and freight systems, the major problems and strategic options of the future, and the roles that will be played by government and carriers in the management of the system. This section therefore discusses each of these areas in turn.

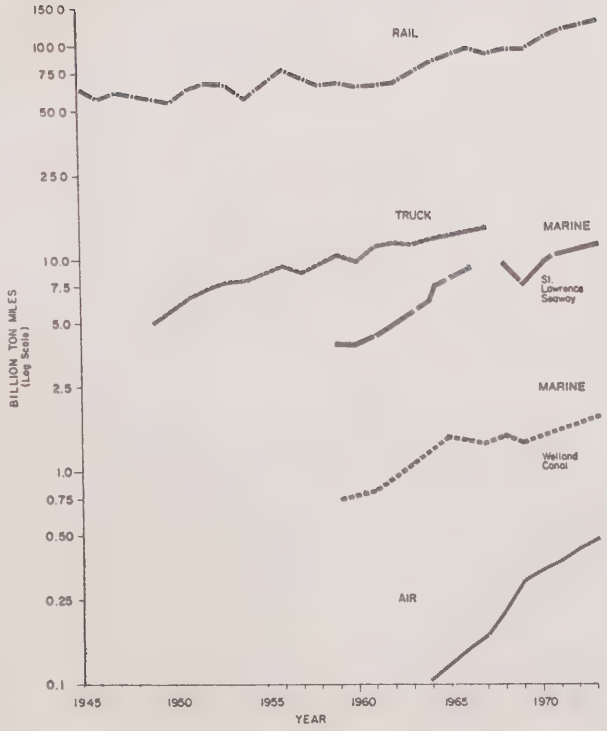
1. The Present System

Separate reports have been prepared on the analysis of the passenger and freight systems. The principal conclusions of the analysis set out in each are presented below.

a) Freight Transportation

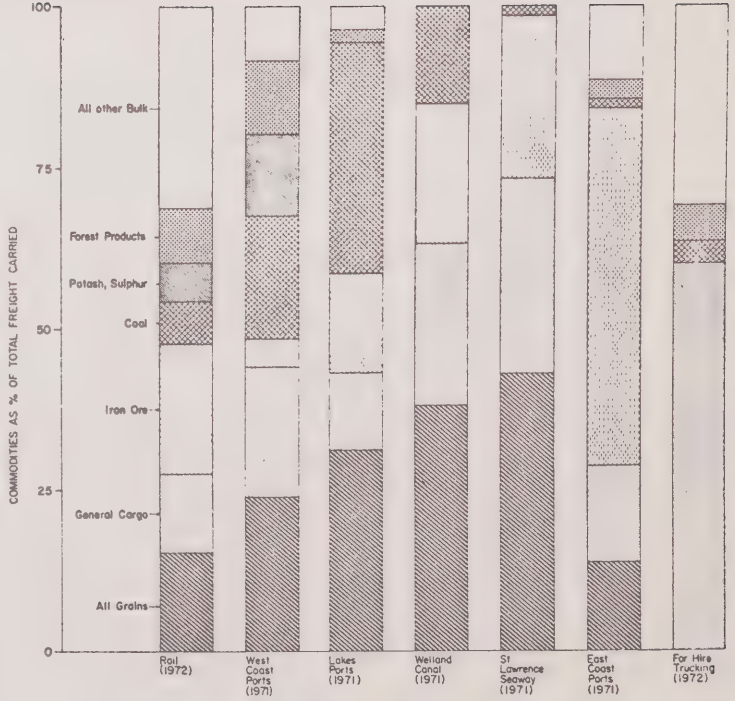
Exhibits 8 and 9 display the ton miles and commodities carried by the various modes in recent years. Rail is the largest mode in terms of ton miles, followed by truck and marine movements.

Significant capacity increases in road, rail, marine and air modes have been achieved since 1950 through the introduction of larger and more efficient vehicles and bigger payloads on a well-developed system of infrastructure. These productivity increases can be expected to level off to some extent as all modes tend to reach their limits of "saturation" in terms of vehicle size and motive power and as infrastructure capacity reaches its limits, particularly in rail. Future productivity gains may, therefore, no longer be sufficient to offset rising operating costs. For this reason and because substantial new rail capacity must be added for the first time in many decades to meet the anticipated growth in demand, investments in freight transportation during the next fifteen years will be larger, proportionately, than those of the past ten years. Preliminary estimates of these capital requirements to 1990 are noted in Part VI.



TRENDS IN REVENUE FREIGHT TRAFFIC

EXHIBIT 8



DISTRIBUTION OF REVENUE FREIGHT, BY COMMODITY BY MODE

EXHIBIT 9

Actual expenditures will depend upon realized traffic growth, which can be affected by market factors and government economic, resource, industrial and other policies. It will be necessary to devise an investment strategy which reduces the possibility of over-investment while retaining the flexibility needed for rapid expansion if necessary. Capacity requirements were tested against a number of economic growth scenarios, ranging from real growth of 3.7% per year to 5.7% per year. The initial conclusion is that requirements for new capacity could vary by plus or minus approximately 15% within this range. In other words, substantial increases in capacity will be required even assuming a relatively low growth trend to 1990. This, coupled with increases in operating costs, will result in upward pressure on freight rates.

Rail freight rates continue to be an emotionally-charged issue. There are some anomalies in terms of rates charged for certain commodities and these are being dealt with as part of an ongoing program of freight rate system improvements. An analysis of rates and levels of service indicates that truck-rail competition is effective for general cargo and container traffic, and rail-marine competition is effective from Thunder Bay east (although affected by present subsidy patterns). Most bulk shippers in the West, however, are captive to rail and often to one particular railway, and are therefore not protected by transport competition, although market competition where it exists can influence some bulk commodity rates. Overall and subject to the anomalies mentioned above, levels of service provided to shippers in various parts of Canada appear to be reasonably high and equitable in terms of quality provided and rates charged. Some rates for products moving off-shore, however, may be too low in view of the overall impact of such traffic on the transportation system.

The role of freight rates in assisting regional development has been the object of a number of studies and further analysis is now being carried out. However, the evidence suggests that the blanket-use of freight rates either in the form of "freezes" or subsidies is inefficient and is not the major factor in development. Any assistance must therefore be selective, with each case being justified and dealt with on its merits.

If subsidies are required, they are better identified as such and paid directly to the industry in question. In this way, the distortions and consequent inefficiencies caused by hidden subsidies can be avoided.

A key factor in railroad viability is the grain system, some aspects of which are now the object of government enquiry.

An overall freight rate approach is needed that is equitable but, at the same time, able to ensure a sufficient cash flow to meet railway operating, maintenance and expansion requirements.

As the transportation system approaches capacity, it is more and more difficult to make up for lost time. Hence, interruptions due to work stoppages are an increasingly important problem which is affecting Canada's credibility as a supplier of commodities on the world market. The situation is exacerbated by the ability of relatively small numbers of employees, in some instances, to interrupt major flows and affect the livelihood of many thousands of people. An industry-wide bargaining approach which is now being proposed by government should help to overcome this problem.

Government must play a central role in obtaining the maximum efficiency from the present system, studying alternative expansion options, monitoring private initiatives affecting transportation demand, and ensuring that the optimum courses of action are followed, thus minimizing the need for investment and freight rate increases.

b) Passenger Transportation

Passenger services are generally extensive, providing an established national network and connections overseas. There are, however, a number of problems. The major areas of concern, from a policy point of view, are the extensive peaking of recreational traffic, the fact that there are some anomalies in passenger fares, a lack of inter-modal coordination, the extent of subsidies on some mature services, the varying degrees of subsidies across modes, and the dominance of the private automobile, with its relatively high costs and high level of energy consumption.

Exhibits 10 and 11 provide an indication of trends in passenger miles by mode, as well as an indication of the modes used for different types of passenger travel.

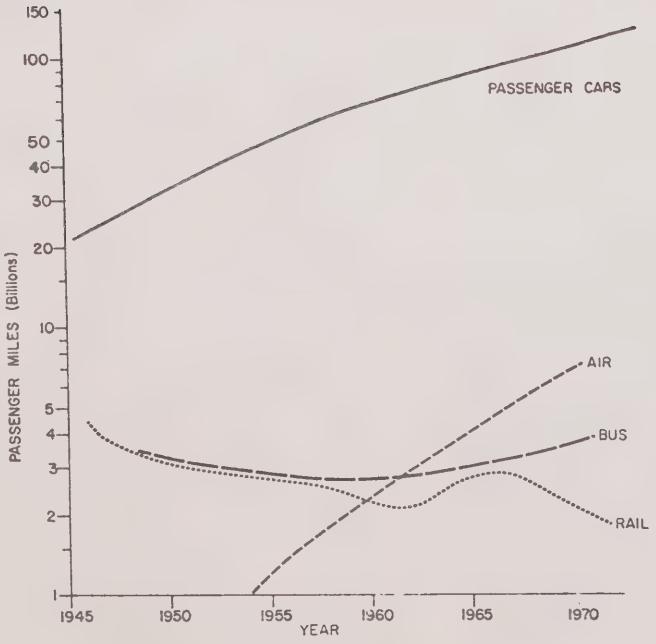
The role of the private automobile requires particular examination since its dominance in the passenger field (accounting for about 85% of all passenger miles) has important implications for the potential use of other modes, quite apart from such considerations as energy conservation and public safety.

Of the other modes, air is the largest, dominating the long-haul market (over 1,000 miles) and is likely to continue to do so. At shorter ranges (up to 500 miles), bus, rail and air are competitive with the auto; at short to medium ranges (500-1,000 miles), bus, rail and air compete, each offering different service and price levels.

Within the air mode, there is a degree of government-controlled competition between carriers (Air Canada and CP Air) limited almost exclusively to the higher density routes.

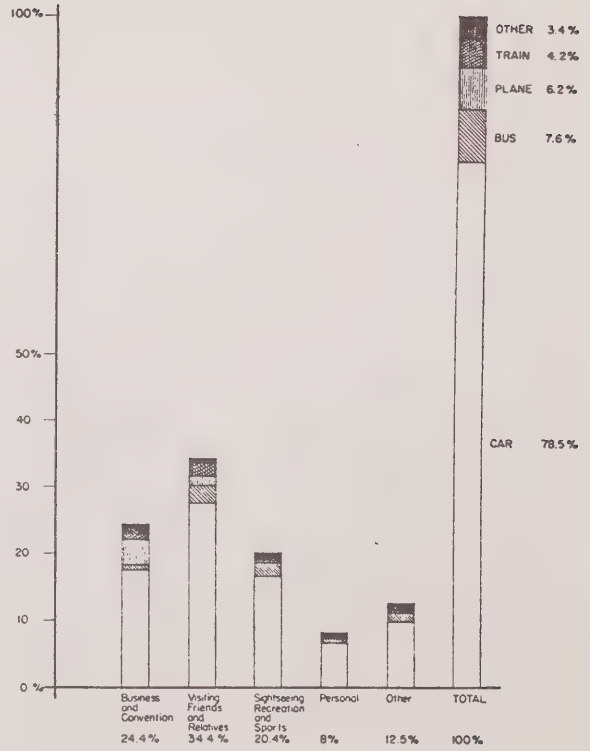
Little or no intra-modal competition exists in rail and bus service. Where there is inter-modal competition, it is distorted by uneven government assistance. Approximate levels of subsidy are 5 cents per passenger-mile for rail, 2 cents per passenger-mile for air, and 0.6 cents per passenger-mile for auto. The bus appears to be completely self-supporting without subsidy, while the rail passenger is, by a large margin, the most heavily subsidized, with air (including the costs of airports and aids) in between.

Urgent attention to the rail passenger system and to the rapidly increasing rail passenger subsidy program is needed. Rail operating subsidies in 1974 were about $135 million and are expected to rise to about $310 million by 1980 unless there is a policy change. It would appear that rail services can be made commercially viable in the high-density Quebec-Windsor corridor. On lower density routes, other modes can often provide needed service more effectively without subsidy. A more balanced approach to passenger service is required giving consideration to an eventual objective of full commercial viability, including recovery of infrastructure costs, except in remote areas, where traffic volumes may be inadequate and assistance may be required.



TRENDS IN PASSENGER MILES

EXHIBIT 10



DISTRIBUTION BY TRIP PURPOSE BY MODE

EXHIBIT 11

Leisure travel peaks are growing, which conflict with business travel peaks, complicating the provision of effective service for both and generating new airport and highway capacity demands. Specific steps to spread peak loads and reduce conflicts are being considered.

Costs decrease with distance in all passenger modes. In air in particular, long-haul traffic is subsidizing short-haul movements. Subject to some bus and rail mode deviations, fare structures in all modes reflect a measure of equity in terms of the same charge for the same distance. A fare structure which maintains equity and adequately reflects the cost variation with distance is desirable.

The passenger industry is served by a combination of public and private, national and regional carriers, with Air Canada and CN dominating their modes. Overall, these combinations work effectively and are worth preserving. If transportation is to be an instrument of national policy, preservation of Canadian ownership (which with the partial exception of buses, exists in all modes) is considered desirable.

The bus industry, the least expensive and only self-sufficient mode, has not achieved its full potential, in part because it falls under ten separate provincial jurisdictions, since the federal government has not exercised its regulatory authority over interprovincial movements in this field. Greater potential could be achieved through a greater degree of coordination of services within the bus mode and with other modes as well.

2. The Strategic Options

The public and private sectors will be faced with a number of major problems and opportunities in the future development of the transportation system. These include the need for further extensions to the system into the North, the need for additional capacity to handle the expected volumes of traffic moving to and through the West Coast ports, the possible need to expand rail and marine facilities in the eastern and central parts of Canada, the need to modernize the grain handling system, and the need to integrate the present fragmented passenger services. Each presents the public sector in particular with major strategic options. It is in exercising these options to meet particular problems, issues and needs that government will have its greatest opportunities to use transportation as an instrument of national purpose.

Three are discussed below, as examples. They provide an indication of the issues involved, and the factors that must be accommodated within a transportation policy.

a) Northern Extensions

Providing the complex social and uniquely sensitive ecological problems can be overcome, the development of northern Canada provides access to resources for the Canadian economy and world markets. This is increasingly important, in view of domestic and world requirements for energy and other resources, quite apart from the requirement to improve services and reduce the isolation of northern communities. Of particular interest are iron ore from northern Quebec and Labrador, and the minerals and oil and gas from Alberta, British Columbia, Saskatchewan and the Northwest Territories.

These developments are analogous to the opening of the West in the past. The choice and location of new transportation services, particularly the terminals, can have a significant impact on the extent and distribution of industrial development and the degree of integration of the northern extensions with the basic east-west network in the southern parts of the country.

Further, in the development of these northern extensions, careful consideration must be given to non-transportation alternatives, such as the further processing of resources before shipment, before investment decisions are taken. Consideration must also be given to the various modes of transportation that could be developed to provide the services, recognizing that there will likely be relatively little competition, because of the nature of the commodities and the geography involved.

The security and reliability of these services will be of critical importance and clearly the national interest must be stated and prevail over sectoral and individual private interests.

Developments must take account of national as well as regional and provincial development strategies, which could affect the nature and location of the services to be provided.

The complexity of the options, the wide range of considerations involved, and the number of public and private organizations concerned, require that government play a major role in planning the necessary transportation extensions and seeing to their implementation.

As most of these developments are to foster Canada's growth as a world trading nation, and as many of the bulk flows will be directly for export markets, the full costs of the services provided should be borne, as a general rule, by the users and foreign beneficiaries of the system. Given the limited competition that will prevail in northern transportation, government will be required to regulate prices in order to protect the captive shipper.

b) West Coast Access

While the basic services are developed, capacity to the West Coast, particularly on the rail system, is becoming increasingly limited. Continued growth in coal traffic, as well as anticipated increases in movements of grain and other commodities, will place heavy loads on the critical rail links from Calgary and Edmonton west through to the ports. Congestion in the Port of Vancouver and the movement of large numbers of rail cars through the city detract from the urban environment and result in inefficient rail and ship operations. Coupled with this environmental concern is the provincial desire to encourage development in the northern part of British Columbia.

In addressing the question of increasing rail and possibly highway capacity from Alberta west to the ports in British Columbia, a variety of factors need to be considered.

One is the need to assess the feasibility of non-transport alternatives, for example, increased processing, in the Prairie Provinces and British Columbia, of commodities which are now shipped in raw form. This would create jobs and increase the value added to the Canadian economy, and could as well influence the timing of new investments in transportation facilities. It is also important to consider the further use of bulk handling operations such as the use of unit trains to move grain directly to ocean ships through ports in British Columbia, whether at Vancouver or Prince Rupert.

Since many of the relevant commodity flows are for export, the full costs of providing the transportation services should, as a general rule, be recovered from the users and foreign beneficiaries of the transportation system, unless other government objectives dictate that the full costs should not be covered by user charges.

Government leadership in the planning and examination of alternatives will be required, particularly in the light of regional industrial strategies and related non-transportation alternatives. Given the limited degree of inter-modal and intra-modal competition, government regulation will be required to ensure that captive shippers are protected.

c) East Central Access

East Central access differs in nature from West Coast access, in that the geographic problems are markedly different, and marine transport is available as far west as Thunder Bay. Present capacity is adequate through to the mid-1980's. However, increases in the movement of commodities from the Prairies and Ontario east and of iron ore from northern Quebec and Labrador west could result in some congestion of the Welland Canal by the late 1980's.

There are critical choices between rail unit trains and laker movements from the Upper Lakes through the Welland Canal and the Seaway down the St. Lawrence. Present charges on the Seaway and the Welland Canal do not reflect the true costs of capital and interest as well as operating and maintenance costs. These have resulted in significant losses and in a stimulation of traffic on the Welland and the Seaway which could, in the longer term, result in potential bottlenecks.

In considering the options, careful consideration should be given to the choice of mode, particularly as between rail and marine. At the same time, competition between rail carriers, and between rail and marine, should be encouraged, resulting in less regulation than may be necessary in the case of movements to West Coast ports. It would appear that the various modes can operate on a commercially viable basis, including the cost of providing capacity as well as the cost of operating and maintaining the services concerned.

3. The Alternative Roles of Government

Within the broad framework outlined in Part II, transportation policy must be based on a view of the role of government in the transportation sector, and the institutional arrangements appropriate to that role.

There appear to be two main alternatives: retain the present approach in which the government maintains a position of minimum involvement in the development of the system; or assume a role of leadership in its planning and development. Within the latter alternative, the extent of government involvement can vary as to both nature and degree.

The National Transportation Act established, as the objective, "an economic, efficient and adequate transportation system, making the best use of all available modes of transportation at the lowest total cost" and assumed that this objective could be met through the competitive forces of the market place, subject to some regulatory and other constraints. The net effect of the Act was not only to remove the cumbersome structure of detailed rate regulation, but also to leave the development of the system largely to the forces of the market, with limited need anticipated for direct government involvement or leadership.

From a number of points of view, the transportation system is working well. However, the present approach, as symbolized by the Act:

a) does not recognize the extent to which governments are now involved, directly and through their agencies, in the provision of both infrastructure and services; indeed, most transportation infrastructure -- which is the most significant factor in determining the basic shape and nature of the system -- is, with the exception of railroads and pipelines, provided by government (even though in the latter two instances, government involvement has not been totally absent);

b) in its philosophy, does not take into account sufficiently the diversity of transportation markets and conditions in Canada and, in particular, the developmental nature of significant parts of the country and its transportation services, as reflected in the policy framework outlined in Part II;

c) by setting out what are primarily market objectives, does not make adequate provision for transportation to be used as an instrument in support of broad national policy objectives, or for the leadership role required of government in the development of the system to support the achievement of those objectives; and

d) does not provide an adequate framework for dealing with the passenger sector.

These considerations demonstrate some of the weaknesses of the existing framework. In addition, however:

a) partly because competition is only partially effective in a number of transportation markets, and partly because of different government treatment of the various modes, the competitive market place does not now ensure a balanced inter-modal approach, making the best use of each mode;

b) private market decisions, taken independently of government, can lead to requirements for major public investments in one mode or facility, while lesser investments in another mode or facility might be more efficient;

c) the market is not capable on its own of resolving a number of major transportation problems which are often institutional in character; and

d) the macro-economic impact of major developments is such that the government needs to maintain a broad overview of their present and future implications.

Thus it is clear that, while the competitive forces of the market place should be relied upon wherever economic and technical conditions permit, more active government leadership is now required than was envisaged under the National Transportation Act. Such leadership, however, could take the form of varying degrees of actual government involvement in the development, operation and regulation of the transportation system and ownership of the facilities and carriers. The alternatives include complete private sector ownership, mixed public/private ownership as at present, a utility approach, or nationalization.

The transportation industry today benefits from the presence of competitive and aggressive private sector organizations that are striving to improve productivity in the interests of reducing costs and gaining additional business. This drive is very often creative and serves the aims of shipper, producer and passenger. The continued viability of competitive private enterprises in transport is therefore judged to be a sound objective of national transportation policy.

Nationalization of transport services would result in greater operational responsibilities on government at senior levels which inevitably would divert time and resources away from leadership needed in the development of extended, expanded and improved services. There is little evidence to indicate that overall public ownership would be more effective than operation by the private sector within a clearly articulated government policy framework. What is principally required at this point in time is the formulation of overall transportation needs and their translation into clear statements of policy to guide public and private corporations alike.

There are also strong arguments against treating the transportation industry, or parts of it, as a public utility. A utility is typically regulated as to the rate of return it can earn on its assets

and, often, as to the prices it can charge for its services. The concept is normally applied to services which are considered to be "public" services and which are provided by the organization concerned on a monopoly or near-monopoly basis.

Treating the transportation industry on a public utility basis would involve the regulation of literally thousands of firms, in different modes, offering a wide range of services under different degrees of competition. It would require major government involvement in terms of regulation, and likely result in significant changes to the current structure of the industry.

Treating all or part of rail services on a public utility basis would also give rise to serious problems. If all rail services were provided on this basis, the two main railways might have to be treated as separate, competing public utilities, which is not consistent with the traditional justification of a public utility, namely that services are offered on a monopoly basis. The alternative of merging the railways would create the same problems as nationalization and would eliminate competition in the delivery of rail services. Separating out a part of rail services -- in particular those relating to the movement of bulk commodities -- for treatment on a public utility basis, would give rise to another set of difficulties. While it is possible to establish both the fixed and variable costs of railway operations as a whole, it would be more difficult to determine the precise costs and, more particularly, the precise fixed costs of shipping bulk commodities, since a wide range of non-bulk commodities are moved over the main lines of the railways.

Given the importance of transportation to the functioning of Canada, national instruments of policy are essential. Air Canada and Canadian National should continue as public corporations to allow

government to ensure the provision of national levels of accessibility, equity, service and price. Government must determine the broad levels of service it desires and these corporations must be fully responsive to government policy decisions in this respect.

Consistent, however, with the retention of these selected public carriers as national instruments, is the continued viability of the private transportation interests. Further, public corporations should be encouraged to operate with the objective of achieving and maintaining equivalent viability or at least comparable levels of efficiency to those of their private sector counterparts.

The preferred alternative is therefore the retention of a mix of public and private carriers to operate on a commercially viable basis, within the context of government leadership, particularly in the development of extended, expanded or improved facilities and services.

PART FIVE: THE PROPOSED POLICY PRINCIPLES

Consistent with the broad conceptual framework outlined earlier, the characteristics and likely future requirements of the freight and passenger systems, the major problems and opportunities requiring government decision, a mix of public and private carriers, and the desire of the government to use transportation as an instrument of public policy, it is proposed that:

1. A total transportation system for Canada, providing accessibility and equity of treatment for users, is an essential instrument of support for the achievement of national economic and social objectives.
2. It is the responsibility of government to attend to the provision of an efficient total system for this purpose.
3. Achievement of this purpose requires the integration of services provided through the most appropriate modes for each specific service.

It is further proposed that the requirements and objectives of the public and private sectors would be met through adoption of the following principles:

1. All transportation and non-transportation alternatives should be taken into account in the development and provision of transportation services.
2. Inter-modal and intra-modal competition should be encouraged where economic and technical characteristics permit.
3. There should be a combination of public and private ownership of carriers with private carriers being Canadian controlled, and of national and regional carriers in the provision of transportation, but it should be recognized that, in the event of any conflict between public and private objectives, the public interest must prevail and the interests of total national service must be over-riding.

4. There should be an objective of commercial viability, including cost-recovery, both in the operation of transportation services and in the provision of facilities and services for direct support of transportation.

5. It should be recognized that, where implementation of a particular developmental or national policy requires departure from principle (4), the costs imposed should be clearly and specifically identified and assumed by government.

6. Where effective competition exists, transportation rates should be established through the working of the market mechanism; where such conditions are absent, prices should be regulated to assure the protection of transportation users which market competition otherwise would provide.

7. Where competitive services are available but public assistance is deemed necessary in support of a national social or economic development purpose, the assistance should not operate so as to distort the selection of the most appropriate mode.

8. Special measures should be adopted to ensure that essential transportation services are maintained.

9. The regulatory agency should be responsible within its statutory jurisdiction for overseeing the adherence to these national policies, standards of service, rules and guidelines established by government under which the various constituent parts of the transportation system operate.

10. There should be provision for proper consultation and participation in major aspects of the development and economic regulation process, between different levels of government and between government and the public.

PART SIX: THE IMPLICATIONS OF THE FRAMEWORK AND THE PRINCIPLES

A number of the more important implications of the framework and policy principles are described below, in terms of general implications, financial implications, institutional implications and human resource implications.

1. General Implications

While a number of the provisions of Section 3 of the National Transportation Act (see Appendix) have been incorporated in the new policy principles, the differences are basic. For example, the new policy:

a) envisages the use of transportation as an instrument of national policy, rather than as a passive support function;

b) states that the transportation system should be accessible, equitable and efficient, rather than economic, efficient and adequate, thus giving better definition to the concept of adequacy in the Act, while retaining the criterion of efficiency;

c) makes provision for the fact that there is a wide range of transportation services in Canada, with varying degrees of maturity and competition, rather than focussing primarily on those services which are both mature and competitive;

d) provides for an active government leadership role in the development of the system, relying on the competitive forces of the market where economic and technical conditions permit, rather than relying almost exclusively on competition;

e) recognizes the importance of maintaining essential services;

f) gives equal prominence to freight and passenger transportation, rather than relating mainly to the requirements of freight transportation; and

g) recognizes the need for consultation and participation among governments, and between government and the public, in the development of the system.

Two key concepts in the new policy principles are those of equity (i.e. the generally equal treatment of transport users in equivalent conditions) and accessibility (i.e. the provision of capacity and levels of service appropriate to the movement of people and goods). As noted elsewhere in this document, the analytical work carried out to date suggests that the transportation system is, in overall terms, reasonably equitable and accessible with respect to both freight and passenger services, although there are some significant inequities, such as the fact that bus passengers are not subsidized, while air passengers, who generally speaking have higher incomes, are subsidized to a significant extent. Even within a single mode, such as air, there is inequitable treatment of users, with long-haul subsidizing short-haul passengers. There are also a number of freight rate inequities that require attention.

2. The Financial Implications

The policy review work to date has included forecasts of transportation demand levels under various assumed socio-economic and policy scenarios. Based on this, initial estimates of future capital expenditures were made and are summarized in Exhibit 12. It must be emphasized that these estimates are preliminary and, therefore, approximate; they do, however, provide an indication of future implications.

PAST AND EXPECTED CAPITAL EXPENDITURES TO 1990

Intercity Freight and Passenger Transportation

	Approximate Average Annual Rate of Capital Expenditure 1963-1973 Plant and Equipment (Millions of current dollars)	Estimated Capital Expenditures, 1976-1990					
		Infrastructure (Plant)		Equipment		Plant and Equipment	
		Total	Per Year	Total	Per Year	Total	Per Year
		(millions of 1975 dollars)					
Rail	320	6,000-10,000	400- 670	3,000- 5,700	200- 380	9,000-15,700	600-1,050
Marine	140	1,500- 2,300	100- 150	2,500- 4,000*	170- 270	4,000- 6,300	270- 420
Road**	650- 700	9,000	600	4,000- 5,000	270- 330	13,000-14,000	870- 930
Air	230	3,500- 4,000	230- 270	3,700- 4,500	250- 300	7,200- 8,500	480- 570
TOTAL	1,340-1,390	20,000-25,300	1,330-1,690	13,200-19,200	890-1,280	33,200-44,500	2,220-2,970

* Expansion and replacement of laker and coastal fleets, icebreakers, etc.

** Infrastructure includes primary highways only; equipment includes intercity trucks (for hire, private) and buses only; all private automobiles, urban trucks and buses are excluded; range shown for 1963-73 because data published for highways and trucking are not broken down in this manner.

NOTE: All forecasts are preliminary estimates and subject to revision as a result of further research.

EXHIBIT 12

Comparison of estimated future annual rates of capital investment with those experienced during the past decade show increases for all modes of the order of 33% to 230%. The most substantial increases are expected for the rail mode, reflecting the fact that there is no longer excess capacity in significant portions of the rail network. This will mean substantially increased investments in replacement and expansion of rail facilities.

While detailed studies have yet to be completed, it is apparent that a very high proportion of the expected future capital expenditures will be to expand mature parts of the system, such as east-west mainline rail links, major ports, major airports and heavily travelled highways and, possibly, the Welland Canal. Substantial traffic increases will help to pay for the required investments, but increased fares and shipping rates will be required to finance the necessary capital and operating costs. Government expenditures from general tax revenues will continue to be required to cover construction and operating subsidies for developing parts of the system, at least until they reach the 'mature' stage. It would be the expectation, however, that these expenditures would be offset to some extent by more appropriate levels of user charges on publicly provided facilities and services.

3. The Institutional Implications

The role of government is seen primarily as one of leadership in the development of the transportation system. In addition, it must concern itself with regulation, relying on the competitive market place to determine rate levels where economic and technical conditions permit.

The role of government in providing active leadership in the development of the system will include the following functions, with the precise extent and nature of government involvement depending on the degree of competition and state of maturity of the facility or service concerned:

a) policy formulation, to set a context for the public and private sectors;

b) planning, particularly the review of the broad strategic transport problems and the major options including the inter-modal alternatives and non-transport alternatives;

c) development of the human resources required by the transport system and the continued monitoring of the transport environment to enhance the career opportunities and working environment of those working in the transport sector;

d) technological development;

e) facilitation, acting as a catalyst in stimulating the introduction of improvements in the transportation system;

f) investment in the development of extended, expanded and improved services depending on the degree of maturity of the market or service concerned; and

g) the development of services where required, including the launching of specific operations where appropriate.

The role of government in the regulatory field will include:

a) direction and policy guidance to the regulatory body;

b) regulation to ensure that the transportation system develops in accordance with public policy objectives;

c) regulation aimed at maintaining and improving the overall efficiency of the transportation system; and

d) regulation aimed at enhancing and fostering competition, where economic and technical conditions permit.

This leadership role of government will require the creation of an ongoing strategic planning process for transportation, to enable the research program which has been mounted for the purposes of the policy review to be carried on on a continuing basis, to enable the government to keep abreast of current and future developments in the transportation sector, and to enable federal departments, provincial governments, carriers and shippers to make their views known and felt in the ongoing formulation of transportation policy.

4. Human Resource Implications

The development of extended, expanded and improved transportation services, and the operation of the mature network of services will have very substantial human resource implications.

The transportation system requires a great range and diversity of skills, from operational functions to some of the most sophisticated research and development techniques. Requirements for human resources range from a large number of unskilled or semi-skilled employees through to various degrees of specialization to professional or managerial expertise.

One of the major government roles in transportation leadership is to assist in ensuring that the required manpower will be available to undertake this great diversity of activities. In order to ensure that people will be attracted to transport, the working environment at the operational as well as other levels must continually be improved.

The training and retraining of available manpower is an important element in the future development of the transportation system. While it is most difficult to forecast exact needs, categories of requirements can be established, and it is important to ensure that substantial numbers of people are being trained in the various categories.

The transportation system will continue to evolve to meet new needs. There will be additions, expansions and contractions. New technologies will be explored and perhaps introduced into the system. These changes will constitute both opportunities and problems for those who work in transportation. Special attention will have to be given to protect the interests of those who might be affected by change.

Special attention will also need to be given to the range of problems that can lead to serious interruptions in transportation services.

PART SEVEN: CONCLUSIONS

Canada is a mix of both developing and economically mature regions, of both frontier and market place. Similarly, transportation is a range of services, varying as to degree of competition and maturity. Many services are just developing as new regions are opened or as new technology is introduced. Given the nature of commodities moving and the geography over which they are transported, many services will never face a significant degree of competition. An approach is required that takes account to a much greater extent than does the present National Transportation Act, of the variety of services and the varying degrees of competition that exist.

Transportation is an all pervasive force in Canada, which if used selectively, can be a major instrument of support for the broad range of national goals.

The achievement of this role of transportation requires a new set of policy principles that provide for:

- active government leadership in the establishment of an integrated approach to the provision of transport services, including consideration of transport and non-transport alternatives;

- an emphasis on the developmental role of government in attending to the provision of extended services to serve northern areas, expanded services, particularly with respect to rail, canal and port capacity in the South, and improved services through the introduction of new technology; and

- the definition and reaffirmation of the role of the private sector, relying on competition where economic and technical characteristics permit, with the user paying for facilities and services, particularly where these are mature.

The financial, institutional and legislative changes necessary to realize a transportation system that will serve the nation's needs require a process of participation involving governments, industry, both management and labour, as well as users and shippers.

It is envisioned that such financial, institutional and legislative changes will build upon the present National Transportation Act, which appears appropriate for the treatment of highly competitive and mature services, but will add new dimensions to the Act to provide for the diversity and range of transportation services in Canada, and the corresponding degrees of government involvement.

APPENDIX

SECTION 3 OF THE NATIONAL TRANSPORTATION ACT

"It is hereby declared that an economic, efficient and adequate transportation system making the best use of all available modes of transportation at the lowest total cost is essential to protect the interests of the users of transportation and to maintain the economic well-being and growth of Canada, and that these objectives are most likely to be achieved when all modes of transport are able to compete under conditions ensuring that having due regard to national policy and to legal and constitutional requirements

(a) regulation of all modes of transport will not be of such a nature as to restrict the ability of any mode of transport to compete freely with any other modes of transport;

(b) each mode of transport, so far as practicable, bears a fair proportion of the real costs of the resources, facilities and services provided that mode of transport at public expense;

(c) each mode of transport, so far as practicable, receives compensation for the resources, facilities and services that it is required to provide as an imposed public duty; and

(d) each mode of transport, so far as practicable, carries traffic to or from any point in Canada under tolls and conditions that do not constitute

(i) an unfair disadvantage in respect of any such traffic beyond that disadvantage inherent in the location or volume of the traffic, the scale of operation connected therewith or the type of traffic or service involved, or

(ii) an undue obstacle to the interchange of commodities between points in Canada or unreasonable discouragement to the development of primary or secondary industries or to export trade in or from any region of Canada or to the movement of commodities through Canadian ports...."